# **Chat Website Project Report**

## **Project Overview.**

This project is a web-based chat application designed to allow users to chat with other users in real time over the Internet. Users can enter a username and join the chat, then they can send text messages, view other users' messages, and interact with them.

### **Project Background**

This project was inspired by the need for real-time communication, whether for social communication, team collaboration, or other purposes. It aims to provide a simple and intuitive interface that allows users to quickly start chatting with others.

### **Project Features**

- 1. User Authentication
- 2. Users can enter a custom username.
- 3. Users can use the same username on different devices.

#### **Live Chat**

- 1. Users can send text messages which will be transmitted to other online users in real-time.
- 2. Messages are displayed with a timestamp so that users know when the message was sent.

#### User List

- 1. On the sidebar of the chat page, users can see other users who are currently online.
- 2. Users can identify who is online and communicate with them.

## **Interface Beautification**

- 1. The interface was designed with user-friendliness and usability in mind.
- 2. Attractive colors and typography were used to enhance the user experience.

## **Development Process**

The following technologies and tools were used for the project:

- 1. Front-end: HTML, CSS, JavaScript
- 2. Backend: Node.js, Socket.io

#### The development process of the project included the following steps:

- 1. Create basic HTML and CSS layouts, including the homepage and chat page.
- 2. Create a backend server using Node.js and use Socket.io to handle real-time

communication.

- 3. Implement user authentication and online user list functionality.
- 4. Developed front-end JavaScript to handle user input and messaging.
- 5. Test the application to ensure that the live chat functionality is working properly.

#### Conclusion

This chat website project has successfully implemented a live chat feature that enables users to interact with other people easily. It has a user-friendly interface and attractive design that can be used in a variety of scenarios including social chat, team collaboration, and online communication.

## Follow-up

In the future, we can consider adding more features to enhance user experiences, such as file sharing, emoticon support, and chat room management. In addition, security and performance can be improved to meet the needs of more users.

This is a simple one-page report example that you can modify and expand according to your actual project. Hope this helps you to complete the report.

#### References

- 1. Socket.io Documentation. [Online]. Available: https://socket.io/docs/v4/
- 2. W3Schools HTML Tutorial. [Online]. Available: https://www.w3schools.com/html/
- 3. Node.js Documentation. [Online]. Available: https://nodejs.org/en/docs/